

Subject Index

A

- Acetaldehyde on silica-supported nickel. Infrared, R. P. YOUNG AND N. SHEPPARD, 340
- Acidic sites on mordenite by infrared. MICHEL LEFRANCOIS AND GABRIEL MALBOIS, 350
- Adsorbed compounds on reduced and oxidized Bi-Mo catalysts. Adsorption equilibria and rates of reactions. T. MATSUURA AND G. C. A. SCHUIT, 19
- Adsorption equilibria and rates of reactions of adsorbed compounds on reduced and oxidized Bi-Mo catalysts. T. MATSUURA AND G. C. A. SCHUIT, 19
- Adsorption of hydrogen and para-ortho-hydrogen conversion on rhenium. HELENA KUBICKA, 163
- Adsorption of oxygen on evaporated gold films. P. C. RICHARDSON AND D. R. ROSSINGTON, 420
- Aliphatic ketones on silica-supported nickel. Infrared, R. P. YOUNG AND N. SHEPPARD, 333
- Alkanes. Skeletal reactions of some C_6 on metal films. J. R. ANDERSON, R. J. MACDONALD, AND Y. SHIMOYAMA, 147
- Alloy formation on zeolite. Y. W. G. REMAN, A. H. ALI, AND G. C. A. SCHUIT, 374
- Alumina. Decomposition of *n*-butanol over salt-impregnated, RUSSELL W. MAATMAN AND LARRY J. VANDE GRIEND, 238
- Alumina catalyst and support XL(1). Ring expansion during dehydration of alcohols over, HERMAN PINES AND STANLEY M. BROWN, 74
- Alumina surface in the dehydration of methanol. Poisoning and nature of, N. S. FIGOLI, S. A. MILLAR, AND J. M. PARERA, 230
- Alumina/palladium catalysts for benzene hydrogenation. Hydrogen migration on, KENNETH M. SANCER, 106
- Aluminosilicates containing S, Se, and Te. Hydrocarbons conversion over, J. N. MIALE AND P. B. WEISZ, 288

B

- Benzene hydrogenation. Hydrogen migration on alumina/palladium. KENNETH M. SANCER, 106
- Benzyl alcohol derivatives over palladium. Hydrogenolysis of, A. P. G. KIEBOOM, J. F. DE KREUK, AND H. VAN BEKKUM, 58
- BET. Simple and inexpensive apparatus, JOHN E. BENSON AND ROBERT L. GARTEN, 416
- BET system. Simple micro, KENNETH E. HAYES, 414
- Bi-Mo catalysts. Adsorbed compounds on reduced

and oxidized, I. MATSUURA AND G. C. A. SCHUIT, 19

Bismuth molybdates. Oxidation of 1-butene over, PH. A. BATIST, C. G. M. VAN DE MOESDIJK, I. MATSUURA, AND G. D. A. SCHUIT, 40

Book review. "Catalytic Processes and Proven Catalyst" by CHARLES L. THOMAS. Reviewed by ALEX G. OBLAD, 425

Book review. "Clean Surfaces: Their preparation and characterization for interfacial studies" edited by GEORGE GOLDFINGER. Reviewed by THOMAS L. MARPLE, 125

Book review. "The Theory of Adsorption and Catalysis" by ALFRED CLARK. Reviewed by M. SHELEF AND K. OTTO, 425

n-Butanol over salt-impregnated alumina. Decomposition of, RUSSELL W. MAATMAN AND LARRY J. VANDE GRIEND, 238

1-Butene over bismuth molybdates. Oxidation of, PH. A. BATIST, C. G. M. VAN DE MOESDIJK, I. MATSUURA, AND G. C. A. SCHUIT, 40

C

- Carbon monoxide on ferric oxide. Chemisorption of, ATSUMU OZAKI AND KEN-ICHI TANAKA, 422
- Cation positions in cerium X zeolites. F. D. HUNTER AND J. SCHERZER, 246
- Cerium X zeolites. Cation position in, F. D. HUNTER AND J. SCHERZER, 246
- Chemisorption at high temperatures. O_2 on platinum-alumina and platinum-zeolite. S. W. WELLER AND A. A. MONTAGNA, 394
- Chemisorption of carbon monoxide on ferric oxide. ATSUMU OZAKI AND KEN-ICHI TANAKA, 422
- Chemisorption of oxygen and electrical conductivity changes on vanadium pentoxide. S. K. BHATTACHARYA AND P. MAHANTI, 10
- Cracking of cumene on aging catalysts. I. D. R. CAMPBELL AND B. W. WOJCIECHOWSKI, 217
- Cumene on aging catalyst, I. Cracking of, D. R. CAMPBELL AND B. W. WOJCIECHOWSKI, 217
- Cumene on silver and silver-gold alloys. Oxidation of, N. H. A. VAN HAM, B. E. NIEUWENHUIS, W. M. H. SACTLER, 408
- Cu-Ni films. Hydrogen activation by, J. J. BYRNE. P. F. CARR, AND J. K. A. CLARKE, 412
- Cyclohexene with manganese dioxide. Kinetics of, JEAN MARIE BASSET AND WILLIAM F. GRAYDON, 383
- Cycloolefins over palladium. Deuteration isomerization and exchange of, LIONEL HILAIRE AND FRANÇOIS G. GAULT, 267

D

- Decyclization of methyleyclopentane over Pt/ Al_2O_3 . R. L. SMITH, P. A. NARO, AND A. J. SILVESTRI, 359
- Dehydration of alcohols over alumina. Ring expansion during, HERMAN PINES AND STANLEY M. BROWN, 74
- Dehydration of methanol. Poisoning and nature of alumina surface in the, N. S. FIGOLI, S. A. HILLAR, AND J. M. PARERA, 230
- Dehydrocyclization. Tellurium-loaded zeolites I. W. H. LANG, R. J. MIKOVSKY, AND A. J. SILVESTRI, 293
- Deuteration isomerization and exchange of cycloolefins over palladium catalysts. LIONEL HILAIRE AND FRANÇOIS G. GAULT, 267

E

- Electrical conductivity changes on vanadium pentoxide. Kinetics of chemisorption of oxygen and, S. K. BHATTACHARYYA AND P. MAHANTI, 10
- Errors in kinetic data in a flow reactor. JANA ŠLEMROVÁ AND M. KRAUS, 172
- ESR spectra of adsorbed olefins on zeolite Y. G. RASHEEV, 120

F

- Ferric oxide. Chemisorption of carbon monoxide on, ATSUMI OZAKI AND KEN-ICHI TANAKA, 422
- Flow reactor. Random errors in kinetic data from, JANA ŠLEMROVÁ AND M. KRAUS, 172

G

- Gas chromatographic study of hydrogen adsorption on supported metals. A. HAUSEN AND H. L. GRUBER, 97
- Gas-solid reactions. A. CALVELO AND R. E. CUNNINGHAM, 264
- Gas-solid reactions. Recent papers concerning, JAMES W. EVANS, 122
- Gold films. Adsorption of oxygen on evaporated, P. C. RICHARDSON AND D. R. ROSSINGTON, 420

H

- Heat transport limitations in fixed bed reactors. Diagnostic criteria for, DAVID E. MEARS, 127
- n*-Heptane over unsupported metals. Hydrogenolysis of, J. L. CARTER, J. A. CUSUMANO, AND J. H. SINFELT, 223
- Hydrocarbon conversion over crystalline aluminosilicates containing S, Se, and Te. J. N. MIALE AND P. B. WEISZ, 288
- Hydrogen activation by Cu-Ni films. J. J. BYRNE, P. F. CARR, AND J. K. A. CLARKE, 412
- Hydrogen adsorption on supported metals. Gas

chromatographic study. A. HAUSEN AND H. L. GRUBER, 97

- Hydrogen-deuterium exchange on platinum. S. TSUCHIYA, Y. AMENOMIYA, AND R. J. CVETANOVIĆ, 1
- Hydrogen-deuterium exchange on zinc oxide. R. TARTARELLI, M. GIORGINI, AND F. MORELLI, 141
- Hydrogen migration on alumina/palladium catalyst for benzene hydrogenation. KENNETH M. SANCIER, 106
- Hydrogen spillover. Chemical nature of, M. ALBERT VAN NICE AND W. C. NEIKAM, 260
- Hydrogenolysis of benzyl alcohol derivatives over palladium. A. P. G. KIEBOOM, J. F. DE KREUK, AND H. VAN BEKKUM, 58
- Hydrogenolysis of *n*-heptane over unsupported metals. J. L. CARTER, J. A. CUSUMANO, AND J. H. SINFELT, 223

I

- Infrared, Acidic sites on mordenite by, MICHEL LEFRANÇOIS AND GABRIEL MALBOIS, 350
- Infrared and analytical studies. On $\text{SiO}_2/\text{BO}_3/\text{AlMe}_3$ and $\text{SiO}_2/\text{AlMe}_3$. I., R. J. PEGLAR, F. H. HAMBLETON, AND J. A. HOCKEY, 309
- Infrared spectroscopic studies of adsorption and catalysis V. Acetaldehyde on silica-supported nickel. R. P. YOUNG AND N. SHEPPARD, 340
- Isomerization and exchange of cycloolefins over palladium catalysts. Deuteration, LIONEL HILAIRE AND FRANÇOIS G. GAULT, 267
- Isotopic exchange in C_2D_4 - C_2H_4 and in D_2 - H_2 by bis-(triphenylphosphine)-nickel (II) halide. NAOKI ANDO, KEN-ICHI MARUYA, TSUTOMU MIZOROKI, AND ATSUMU OZAKI, 299

K

- Kinetic data from a flow reactor. Random errors in, JANA ŠLEMROVÁ AND M. KRAUS, 172
- Kinetic parameters for propylene disproportionation. Estimation of nonlinear. M. J. LEWIS AND G. B. WILLS, 182
- Kinetics of chemisorption of oxygen and electrical conductivity on vanadium pentoxide. S. K. BHATTACHARYYA AND P. MAHANTI, 10
- Kinetics of cyclohexene reaction with manganese dioxide. JEAN MARIE BASSET AND WILLIAM F. GRAYDON, 383
- Kinetics of heterogeneous catalysis. Transfer paths in, JOHN HAPPEL AND R. S. CSUHA, 132

M

- Manganese dioxide. Kinetics of cyclohexene on, JEAN MARIE BASSET AND WILLIAM F. GRAYDON, 383
- Metal catalysts by temperature programmed de-

- sorption. III. S. TSUCHIYA, Y. AMENOMIYA, AND R. J. CVETANOVIĆ, 1
- Metal films. II. Properties and structure. J. R. ANDERSON, R. J. MACDONALD, AND Y. SHIMOMIYAMA, 147.
- Metals. Gas chromatographic study of hydrogen adsorption on supported, A. HAUSEN AND H. L. GRUBER, 97
- Metals. Hydrogenolysis of *n*-heptane over unsupported, J. L. CARTER, J. A. CUSUMANO, AND J. H. SINFELT, 223
- Methanol. Poisoning and nature of alumina surface in the dehydration of, N. S. FIGOLI, S. A. HILLAR, AND J. M. PARERA, 230
- Methylcyclopentane over Pt/Al₂O₃. Reaction paths for decyclization of, R. L. SMITH, P. A. NARO, AND A. J. SILVESTRI, 359
- Mordenite. Acidic sites by infrared, MICHEL LEFRANCOIS AND GABRIEL MALBOIS, 350

N

- N₂O decomposition. Activity of nickel ions in a spinel matrix for, A. CIMINO AND M. SCHIAVELLO, 202
- Nickel formate dihydrate. Thermal decomposition of, P. G. FOX, J. EHRETSMANN, AND C. E. BROWN, 67
- Nickel ions in a spinel matrix for N₂O decomposition. A. CIMINO AND M. SCHIAVELLO, 202
- Nonlinear kinetics parameters for propylene disproportionation. M. J. LEWIS AND G. B. WILLS, 182

O

- O₂ chemisorption at high temperatures on platinum-alumina and platinum-zeolite. S. W. WELER AND A. A. MONTAGNA, 394
- Offretite. Synthetic I. Characterization. T. E. WHYTE, JR., E. L. WU, G. T. KERR, AND P. B. VENUTO, 88
- Olefins on zeolite Y. ESR spectra of adsorbed, G. RASDEV, 120
- Oxidation of 1-butene over bismuth molybdates. PH. A. BATIST, C. G. M. VAN DE MOESDIJK, I. MATSUURA, AND G. C. A. SCHUIT, 40
- Oxidation of cumene on silver and silver-gold alloys. N. H. A. VAN HAM, B. E. NIEUWENHUYSEN, AND W. M. H. SACHTLER, 408
- Oxidation of propylene to acrolein. Mechanism of promoter action. LARRY L. HOLBROOK AND HENRY WISE, 367
- Oxygen on evaporated gold films. Adsorption of, P. C. RICHARDSON AND D. R. ROSSINGTON, 420

P

- Pt/Al₂O₃. Reaction paths for decyclization of

- methylcyclopentane over, R. L. SMITH, P. A. NARO, AND A. J. SILVESTRI, 359
- Palladium. Deuteration isomerization and exchange of cycloolefins over, LIONEL HILAIRE AND FRANÇOIS G. GAULT, 267
- Palladium. Hydrogen migration on alumina supported, KENNETH M. SANCER, 106
- Palladium. Hydrogenolysis of benzyl alcohol derivatives over, A. P. G. KIEBOOM, J. F. DE KREUK, AND H. VAN BEKKUM, 58
- Para-ortho-hydrogen conversion and adsorption of hydrogen on rhenium. HELENA KUBICKA, 163
- Platinum. Hydrogen-deuterium exchange on, S. TSUCHIYA, Y. AMENOMIYA, AND R. J. CVETANOVIĆ, 1
- Platinum-alumina and platinum-zeolite. O₂ chemisorption at high temperatures on, S. W. WELER AND A. A. MONTAGNA, 394
- Platinum/silica. Variables in the preparation of, T. A. DORLING, B. W. J. LYNCH, AND R. L. MOSS, 190
- Propylene to acrolein. Mechanism of promoter action in oxidation of, LARRY L. HOLBROOK AND HENRY WISE, 367
- Propylene disproportionation. Estimation of nonlinear kinetic parameters. M. J. LEWIS AND G. B. WILLS, 182

R

- Rhenium powder. Para-ortho-hydrogen conversion and adsorption of hydrogen. HELENA KUBICKA, 163
- Ring expansion during dehydration of alcohols over alumina. HERMAN PINES AND STANLEY M. BROWN, 74

S

- SiO₂/BCl₃, SiO₂/AlMe₃, and SiO₂, AlCl₃ II. Catalytic studies. F. H. HAMBLETON AND J. A. HOCKEY, 321
- SiO₂/BO₃/AlMe₃ and SiO₂/AlMe₃ systems I. Surface structure and cracking properties. R. J. PEGLAR, F. H. HAMBLETON, AND J. A. HOCKEY, 309
- Silver and silver-gold alloys. Oxidation of cumene on, N. H. A. VAN HAM, B. E. NIEUWENHUYSEN, AND W. M. H. SACHTLER, 408
- Spinel matrix for N₂O decomposition. Activity of nickel ions in, A. CIMINO AND M. SCHIAVELLO, 202
- Surface area. A simple BET apparatus, JOHN E. BENSON AND ROBERT L. GARTEN, 416
- Surface areas. A simple micro BET system. KENNETH E. HAYES, 414
- Surface state representation of reactants and promoters. S. ROY MORRISON, 110

T

- Tellurium-loaded zeolites I. Novel dehydrocyclization. W. H. LANG, R. J. MIKOVSKY, AND A. J. SILVESTRI, 293
- Temperature programmed desorption. III. Metal catalysts by, S. TSUCHIYA, Y. AMENOMIYA, AND R. J. CVETANOVIĆ, 1
- Thermal decomposition: nickel formate dihydrate. P. G. FOX, J. EHRETSMANN, AND C. E. BROWN, 67
- Transfer paths in kinetics of heterogeneous catalysis. JOHN HAPPEL AND R. S. CSUHA, 132
- Bis-(triphenylphosphine)-nickel (II) halide. Isotopic exchange in C_2D_4 - C_2H_4 and in D_2 - H_2 by,

NAOKI ANDO, KEN-ICHI MARUYA, TSUTOMU MIZOROKI, AND ATSUMU OZAKI, 299

Z

- Zeolite Y. Alloy formation, W. G. REMAN, A. H. ALI, AND G. C. A. SCHUIT, 374
- Zeolites I. Tellurium-loaded. Novel dehydrocyclization. W. H. LANG, R. J. MIKOVSKY, AND A. J. SILVESTRI, 293
- Zeolites (X). Cation positions in cerium, F. D. HUNTER AND J. SCHERZER, 246
- Zinc oxide. Hydrogen-deuterium exchange on, R. TARTARELLI, M. GIORGINI, AND F. MORELLI, 141